

WHAT IS CLAIMED IS:

1. An image forming device, comprising:  
a plurality of holding units that holds data of pixels around  
a target pixel;  
a weight generating unit that generates a weight for each  
holding unit;  
a plurality of weight applying units that applies a  
corresponding weight to the data held by each holding unit; and  
a control unit that determines an exposing energy for the  
target pixel in accordance with an output of each weight applying  
unit.

2. The image forming device according to claim 1, wherein each  
weight applying unit is a multiplier that multiplies the data and  
the weight, and the control unit includes an adder that adds the output  
of each weight applying unit and compares an additional value of the  
adder with one or more reference to determine the exposing energy.

3. The image forming device according to claim 1, wherein the  
weight generating unit is a register that is provided for each holding  
unit.

4. The image forming device according to claim 3, further  
comprising:

a microprocessor unit; and

an address decoder that decodes an address output from the

microprocessor unit and designates each register,

wherein the register designated by the address decoder stores weight data output by the microprocessor unit.

5. The image forming device according to claim 1, further comprising a laser scan unit that exposes the target pixel on a photoconductive body by the determined exposing energy.

6. The image forming device according to claim 5, wherein a duty ratio of a signal output from the control unit controls the exposing energy of the laser scan unit.

7. The image forming device according to claim 6, wherein the control unit includes a signal generator that generates signals of a plurality of different duty ratios, and in accordance with a determination result, selects one of the signals output from the signal generator.

8. An image forming device, comprising:

means for holding data of pixels around a target pixel;

means for generating a weight for image data around the target pixel;

means for applying a corresponding weight to the data held by each means for holding; and

means for determining an exposing energy for the target pixel in accordance with an output of each means for generating a weight.

9. The image forming device according to claim 8, wherein the means for applying a corresponding weight multiplies the data and the weight, and the means for determining adds the output of each means for applying a weight and compares an additional value with one or more reference to determine the exposing energy.

10. The image forming device according to claim 8, wherein the means for generating a weight is a means for holding a weight that is provided for each means for holding.

11. The image forming device according to claim 10, further comprising:

means for outputting an address and a weight corresponding to the address;

means for selecting one of the means for holding a weight in accordance with the address; and

means for holding a weight corresponding to the address by the selected means for holding a weight.

12. The image forming device according to claim 8, further comprising means for laser scanning to expose the target pixel on a photoconductive body by the determined exposing energy.

13. The image forming device according to claim 12, wherein the means for determining determines the exposing energy by a duty ratio of a signal.

14. The image forming device according to claim 13, wherein one signal is selected from signals of a plurality of different duty ratios and the exposing energy is determined.

15. An image forming method comprising:  
extracting data of pixels around a target pixel;  
applying a weight to each extracted data;  
adding the data applied with the weight; and  
determining an exposing energy for the target pixel in accordance with an additional value.

16. The image forming method according to claim 15, further comprising:

designating a register;  
writing the weight into the designated register; and  
retrieving the weight from the register.

17. The image forming method according to claim 15, further comprising outputting to a laser scanner unit, a signal of duty ratio according to the determined exposing energy.

18. The image forming method according to claim 17, further comprising selecting a signal according to the determined exposing energy from signals of a plurality of different duty ratios.

19. The image forming method according to claim 15, further comprising determining an exposing energy corresponding to the

additional value by referencing a lookup table.

20. The image forming method according to claim 18, further comprising selecting a signal according to the determined exposing energy from the signals of the plurality of duty ratios from a lookup table.